

Amendments to the Claims

The listing of claims replaces all prior versions and listing of claims in the application:

Listing of Claims:

1. (Currently Amended): A bone or cartilage implant delivery device comprising:  
a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, wherein the distal end of the outer shaft is suitable for holding the implant; and  
an inner shaft having a distal end and a proximal end, the proximal end suitable for insertion into a defect, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member around a portion of an outer surface of the inner shaft, the friction member in the shape of a ring and having and extending outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member, such that the friction member engages an inner surface of the outer shaft to provide friction-retarded movement of the inner shaft through the outer shaft.

2. (Canceled)

3. (Previously Presented) The device of claim 1 further comprising an implant disposed within the distal end of the outer shaft.

4. (Canceled).

5. (Previously Presented) The device of claim 3 further comprising at least one slot in the outer shaft for visualizing the implant.

6-7. (Canceled).

8. (Original) The device of claim 1 further comprising smooth, rounded surfaces on the proximal and distal ends of the outer shaft and inner shaft.

9-23. (Canceled).

24. (Withdrawn) A method for delivering a bone or cartilage implant into a tissue defect, the method comprising:

providing an implant delivery device including a tubular outer shaft having a proximal and distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, an inner shaft having a distal end and a proximal end, wherein the proximal end of the inner shaft is suitable for insertion into a defect, the inner shaft adapted to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged;

inserting the implant into the distal end of the outer shaft, wherein when the implant is disposed in the outer shaft the proximal end of the inner shaft protrudes from the proximal end of the outer shaft and the length of the implant equals the length of the protruding section of the inner shaft;

inserting the proximal end of the inner shaft into the defect until the proximal end of the inner shaft contacts the bottom of the defect;

advancing the outer shaft in the proximal direction until the proximal end of the outer shaft contacts the surface of tissue surrounding the defect, causing a portion of the implant to extend beyond the distal end of the outer shaft;

cutting off the portion of the implant extending beyond the distal end of the outer shaft, leaving a remaining portion disposed within the outer shaft;

placing the distal end of the outer shaft over the defect; and

distally advancing the inner shaft to push the portion of the implant remaining, after cutting, into the defect.

25. (Withdrawn) The method of claim 24 further comprising placing a cap around the distal end of the outer shaft after the portion of the implant extending beyond the distal end of the outer shaft has been cut off and adding a bioactive fluid to the distal end of the outer shaft.

26. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, wherein the distal end of the outer shaft is suitable for holding the implant; and

an inner shaft having a distal end and a proximal end, the proximal end suitable for insertion into a defect, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member around a portion of an outer surface of the inner shaft, the friction member in the shape of a ring and having and extending outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member, such that the friction member engages an inner surface of the outer shaft to provide friction-retarded movement of the inner shaft through the outer shaft.

27. (Original) The kit of claim 26 further comprising an implant.

28. (Original) The kit of claim 26 further comprising a knife.

29. (Original) The kit of claim 26 comprising a plurality of bone or cartilage implant delivery devices each having different sizes of internal bores and inner shafts.

30. (Currently Amended) An implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and

a solid implant housed within the distal end of the outer shaft, an outer surface of the implant in engagement with an inner surface of the outer shaft.

31. (Canceled)

32. (Previously Presented) The device of claim 30 further comprising at least one slot in the outer shaft for visualizing the implant.

33. (Previously Presented) The device of claim 30 wherein the proximal and distal ends of the outer and inner shafts include smooth, rounded surfaces.

34. (Previously Presented) The device of claim 30 wherein one or more of the shafts comprise means to provide friction-retarded movement of the inner shaft through the outer shaft.

35. (Previously Presented) The device of claim 30 wherein a diameter of both the proximal end and the distal end of the inner shaft is smaller than the internal bore of the outer shaft.

36. (Previously Presented) The device of claim 1 wherein a diameter of both the proximal end and the distal end of the inner shaft is smaller than the internal bore of the outer shaft.

37. (Currently Amended) A bone or cartilage implant delivery device comprising:  
a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, wherein the distal end of the outer shaft is configured for holding the implant; and

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end, the friction member having a extending outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member,

such that the friction member engages an inner surface of the outer shaft to provide friction-retarded movement of the inner shaft through the outer shaft.

38. (Currently Amended) A bone or cartilage implant delivery device comprising:  
a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft; and  
an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end, the friction member having a extending outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member, such that the friction member engages an inner surface of the outer shaft to provide friction-retarded movement of the inner shaft through the outer shaft.

39. (Withdrawn) A method for delivering a bone or cartilage implant into a tissue defect, the method comprising:

providing an implant delivery device including a tubular outer shaft having a proximal and distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, an inner shaft having a distal end and a proximal end, the inner shaft adapted to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end of the inner shaft;

inserting the implant into the distal end of the outer shaft, wherein when the implant is disposed in the outer shaft the proximal end of the inner shaft protrudes from the proximal end of the outer shaft, the implant including closed ended proximal and distal ends; and

distally advancing the inner shaft to push the implant into the defect.

40. (Withdrawn) A method for delivering a bone or cartilage implant into a tissue defect, the method comprising:

providing an implant delivery device including a tubular outer shaft having a proximal and distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer

shaft, an inner shaft having a distal end and a proximal end, the inner shaft adapted to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end of the inner shaft;

inserting the implant into the distal end of the outer shaft, wherein when the implant is disposed in the outer shaft the proximal end of the inner shaft protrudes from the proximal end of the outer shaft, the implant including a non-threaded outer surface; and

distally advancing the inner shaft to push the implant into the defect.

41. (Currently Amended) An implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and

an implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, the implant including a solid body, the solid body including closed ended proximal and distal ends.

42. ( Currently Amended) An implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and

an implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, the implant including a non-threaded outer surface.

43. (Currently Amended) An implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end; and

a solid implant housed within the distal end of the outer shaft and in engagement with the inner surface of the outer shaft.

44. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end; and

the implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, wherein the implant includes a solid body having a closed-ended distal end and a closed-ended proximal end.

45. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end; and

the implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, wherein the implant includes a solid body have a closed-ended distal end and a closed-ended proximal end.

46. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:
- a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;
  - an inner shaft having a distal end and a proximal end, the proximal end suitable for insertion into a defect, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and
  - the implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, wherein the implant includes a solid body.

47. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:
- a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;
  - an inner shaft having a distal end and a proximal end, the proximal end suitable for insertion into a defect, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and
  - the implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, wherein the implant includes a body, the body including closed ended proximal and distal ends.

48. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:
- a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, the distal end of the outer shaft configured for holding the implant;
  - an inner shaft having a distal end and a proximal end, the proximal end suitable for insertion into a defect, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and

the implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, wherein the implant includes a body, the body including closed ended proximal and distal ends.

49. (Currently Amended) A kit comprising at least one bone or cartilage implant delivery device, the implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, the distal end of the outer shaft configured for holding the implant;

an inner shaft having a distal end and a proximal end, the proximal end suitable for insertion into a defect, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged; and

the implant housed within the distal end of the outer shaft and in engagement with an inner surface of the outer shaft, wherein the implant includes a solid body.

50. (Currently Amended) A bone or cartilage implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft, wherein the distal end of the outer shaft is configured for holding the implant; and

an inner shaft having a distal end and a proximal end, wherein the inner shaft is configured to fit within the internal bore of the outer shaft so that the inner shaft and the outer shaft are slidably engaged, the inner shaft including a friction member located between the distal end and the proximal end, wherein the friction member extends outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member, is of a diameter such that the friction member engages an inner surface of the outer shaft to provides friction-retarded movement of the inner shaft through the outer shaft.

51. (Currently Amended) A bone or cartilage implant delivery device comprising:

a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft; and

an inner shaft disposed within the internal bore of the outer shaft, the inner shaft having a distal end and a proximal end, the inner shaft including a friction member around a portion of an outer surface of the inner shaft, the friction member having a extending outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member, such that the friction member engages an inner surface of the outer shaft to provide friction-retarded movement of the inner shaft through the outer shaft.

52. (Currently Amended) A bone or cartilage implant delivery device comprising:
- a tubular outer shaft having a proximal and a distal end, a longitudinal axis, and an internal bore along the longitudinal axis of the outer shaft;
  - an inner shaft disposed within internal bore of the outer shaft, the inner shaft having a distal end and a proximal end, the inner shaft including a friction member around a portion of an outer surface of the inner shaft, the friction member having a extending outwardly from the outer surface, thereby providing the inner shaft with a diameter, in the area of the friction member, such that the friction member engages an inner surface of the outer shaft to provide friction-retarded movement of the inner shaft through the outer shaft; and
  - an implant housed within the distal end of the outer shaft, the implant in engagement with an inner surface of the outer shaft.